PTO/SB/08A (08-03)

Approved for use through 07/31/2006, OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. ETHADE!

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Substitute for form 1449/PTO

Examiner

Signature

(Use as many sheets as necessary)

Complete if Known				
Application Number	10/664708			
Filing Date	September 17, 2003			
First Named Inventor	Michael Allen Bryner			
Art Unit	1771			
Examiner Name	Unknown			
Attorney Docket Number	TK3690USNA			

Examiner	Cito	De.	armant Nimbon	U. S. PATENT DO		T 5
Initials*	Cite No.1	Numb	er-Kind Code ^{2 (F known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
JEP		US- 2	003/0177909 A1	09-25-2003	Koslow	
		US-				
		US-				
_		US-				
		US-			•	
		US-		*		
		US-	· · · · · · · · · · · · · · · · · · ·	 		-
		US-				
		US-				
		US-				
		UŞ-				
		US-		 		
		US-				
		US-		1		
		US-	<u>-</u>	 		
		US-				
		US-				
		US-		 		
		US-				

Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁰
Or Relevant Figures Appear	TO
	Ц_
	₩
 	₩
_	

*EXAMINER: Initial If reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 'Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 'For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as Indicated on the document under WIPO Standard ST.16 If possible. 'Applicant is to place a check mark here if English language Translation is attached.

Date

Considered

Translation is attached.
This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
aperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

Sheet

Examine

Signature

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known				
Application Number	10/664708			
Filing Date	September 17, 2003			
First Named Inventor	Michael Allen Bryner			
Art Unit	1771			
Examiner Name				
Attorney Docket Number	TK3690USNA			

			U. S. PATENT	DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ² (F brown	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
100		US- 6,613,268 B2	09-02-2003	Haynes et al.	
NM.		US- 6,613,266 B2	05-02-2003	- Traynos or an	
		US-			
	<u> </u>	U\$-			
	 	US-			
		US-			
	 	US-			
		US-			
	1	US-			
	 	US-			
	1	US-			
		US-			
	1	US-		·	
	\vdash	US-			
-	1	US-			
	1	US-		·	

		FOREIGN	PATENT DOCU	MENTS		
Examiner Initials*	Cite No.	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	74
		Country Code ³ "Number ⁴ "Kind Code ⁵ (# known)	MM-DD-YYYY		Of Relevant Figures Appear	<u> -</u>
de		WO 2004/026055 A2	04-01-2004	Polymer Group Inc.		_
1118		WO 2004/026167 A2	04-01-2004	Polymer Group, Inc.		L_
R		WO 2004/027135 A2	04-01-2004	Polymer Group, Inc.		
<u> </u>						<u> </u>
			<u> </u>			
	1			<u></u>		L_

*EXAMINER: Initial if preference consistered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Patent Documents at www.usnlo.gov or MPEP 901.04. 'Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 'Applicant is to place a check mark here if English language

Date

Considered

Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08A (08-03) Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Yradermark Office; U.S. DEPARTMENT OF CONMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449/PTO **Application Number** 10/664,708 September 17, 2003 Filing Date INFORMATION DISCLOSURE First Named Inventor Michael Allen Bryner STATEMENT BY APPLICANT Art Unit 1771 (Use as many sheets as necocuary) Examiner Name Unknown Altomay Docket Number TK3690 US NA

				U. S. PATENT C		
Examiner Ci Initials No	Cite No.		Document Number	Publication Date MM-DD-YYYY	Name of Palentee or Applicant of Cited Document	Peges, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
DRP		US- NU	6,114,017	09-05-2000	FABBRICANTE ET AL.	
TRP		US-	5,679,379	10-21-1997	FABBRICANTE ET AL.	· · · · · ·
4		US-				
		US-				
		US-				
		US-	,_,			
-		US-		1		
		US-		 		
		US-		1	•	
		US-				
		U5-				· · · · · · · · · · · · · · · · · · ·
		บร-		,		
		บ3-		 		
		U5-	······			
	-	US-		 		
		· US-				
		US-		 		
		U6-	*	 	,	
		US-			 	

Exeminer Initials*	Clie No.	Foreign Palent Document	PUDICESTON Date	Name of Patentoe or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	•
		Country Code ⁸ "Number ⁸ "Kind Code ⁸ (# known)	MM-DD-YYYY	7 ppiodit at otion o occurrent	Or Relovant Figures Appear	T
						L
						H
<u> </u>			<u> </u>			Γ
]		/ /	Ī

Signature

Signature

Data
Considered. Include copy of this farm with next communication to applicant. Applicants unique cliation number (options). See Kinds Codes of considered. Include copy of this farm with next communication to applicant. Applicants unique cliation designation number (options). See Kinds Codes of or Japanese patient document, by the two-elletter code (WIPO Standard ST.3). For Japanese patient documents, the Indication of the year of the relign of the Emperor must precede the sental number of the patient document. Nind of document by the appropriate symbols as at Indicated on the document under WIPO Standard ST.16 if postable. Applicant is to place a check mark here if English tanguage Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The Information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to proceas) an application. Confidentiality is governed by 35 I.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the Individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-788-0100) and application in completing the form, call 1-800-PTO-9199 (1-800-788-0100) and application in completing the form.

PTO/SB/08A (08-03)

Approved for use through 07/31/2008. OMB 0851-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a vaid OMB control number. stitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

PATENT L

Sheet

Examiner

Signature

(use as many sheets as necessary)

of

Complete if Known					
Application Number	10/664,708				
Filing Date	September 17, 2003				
First Named Inventor	MICHAEL ALLEN BRYNER				
Group Art Unit	1771				
Examiner Name		_			
Attorney Docket Number	TK3690 US NA				

				U.S. PATE	NT DOCUMENTS	
Examiner Initials *	Cite No.1		cument Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
DRI		US -	6,395,046 B1	05-28-2002	Emig et al.	. issued in position
		US -				
		US -				
		US -				
i		US-				
		US-				
		US -				
		US -	·			·
		US-				
		US-				
		US-				
		US-				
		US -				
		US-				
		US -				
		US -				
		US -				
	-	US-	· ·			
	-	US -	···			· · · · · · · · · · · · · · · · · · ·

		FOREIG	SN PATENT D	OCUMENTS		
Examiner Initials*	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where	
	No.1	CountryCode ³ Number ⁴ Kind Code ⁵ (if known)		Applicant of Cited Document	Relevant Passages or Relevant Figures Appear	т,
						Ш
						Ш
						Ш
						Ш
						Ш
						Ш
						Ш

*EXAMINER: Initial is reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not
considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of
USPTO Patent Documents at www.uspto. or MPEP 901.04. 3 Enter Office that Issued the document, by the two-letter code (WIPO Standard ST.3). 4 For
Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 8 Kind of document
by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English
language Translation is attached,

Date

Considered

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Paternt and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTC/SB/08B (08-03)
Approved for use through 07/31/2006, OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of Information unless it contains a valid OMB control number

Substitute for form 1449A/PTO					Complete if Known				
			1001	OCUBE	Application Number	10/664,708			
INFORMATION DISCLOSURE					Filing Date	September 17, 2003			
STAT	LEMEN	T BY	APPL	ICANT	First Named Inventor	MICHAEL ALLEN BRYNER			
					Group Art Unit	1771			
(u	ise as manj	y sheets a	s necess	ary)	Examiner Name				
Sheet	2	10	f 2		Attorney Docket Number	TK3690 US NA			

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS						
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²					
JEP		KRISTINE GRAHAM, MING OUYANT, TOM RAETHER, TIM GRAFE, BRUCE MCDONALD, PAUL KNAUF, Polymeric Nanofibers in Air Filtration Applications, Presented at the Fifteenth Annual Technical Conference & Expo of the American Filtration & Separations Society, April 9-12, 2002, © 2002 Donaldson Company Inc.						
		·						
Examiner Signature		Date Considered 4/2/205						

				/		<u> </u>
Examiner Signature	Jun	RH	Date Considered	4/2	e le	15

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED

FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Sibstitute for form 1449A/PTO Complete if Known **Application Number** 10/664708 INFORMATION DISCLOSURE Filing Date September 17, 2003 STATEMENT BY APPLICANT First Named Inventor MICHAEL ALLEN BRYNER Group Art Unit (use as many sheets as necessary) **Examiner Name** Sheet of TK3690 US NA -Attorney Docket Number

THAT STRATES

				U.S. PATE	NT DOCUMENTS	
Examiner Initials *	Cite No. ¹		cument Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
OKP		US-	6,187,696 B1	02-13-2001	Lim et al.	
TRP		US-	5,885,909	03-23-1999	Rudisill et al.	
All.		US-	5,484,645	01-16-1996	Lickfield et al.	
all		US-	4,632,873	12-30-1986	Mizuno et al.	
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
_		US-	•			
		US-				
		US-				
		US-				
		US-				
		US-		1		
		US-	\			
		US-				
		US-				·
		US-				

	FOREIGN PATENT DOCUMENTS											
Examiner Initials*	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Unes, Where Relevant Passages or Relevant Figures Appear							
	No.1	CountryCode ³ Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document								
JRP		WO 02/20135 A	03-14-2002	Donaldson Co. Inc.								
NP		WO 01/09425 A	02-08-2001	DuPont								
RP		WO 00/37723 A	06-29-2000	Kimberly Clark Co.								
0, 1												
			\overline{A}									
					, /	-						

Examiner Signature	Rh	\subseteq	Date Considered	4/	21/	03	
							_

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto. or MPEP 90.104. Settler Office that issued that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the Indication of the year of the reign of the Emperor must precede the serial number of the patent document. Mind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known

Application Number 10/664708

Filling Date September 17, 2003

First Named Inventor MICHAEL ALLEN BRYNER

Group Art Unit

Examiner Name

Attorney Docket Number TK3690USNA

(use as many sheets as necessary)

Sheet 1 of 3

U.S. PATENT DOCUMENTS Document Number Publication Date Name of Patentee or Pages, Columns, Lines, Where Examiner MM-DD-YYYY **Applicant of Cited Document** Relevant Passages or Relevant Initiats No. Number - Kind Code² (if known Figures Appear 2003/0129909 A1 07-10-2003 **ZUCKER** US-2003/0106294 A1 06-12-2003 **CHUNG ET AL** 08-29-2002 HAYNES ET AL. US-2002/0117782 A1 RENEKER US-6,520,425 B1 02-18-2003 US-6,315,806 B1 TOROBIN ET AL. 11-13-2001 US-6,269,513 B1 08-07-2001 TOROBIN US -6,265,333 B1 07-24-2001 DZENIS ET AL us-6,183,670 B1 02-06-2001 TOROBIN ET AL. US-6,110,590 08-29-2000 **ZARKOOB ET AL** US-6,106,913 08-22-2000 SCARDINO ET AL. 06-04-1996 **SCOPELIANOS** US-5,522,879 GILDING ET AL. US-4,524,036 06-18-1985 US-4,127,706 11-28-1978 MARTIN ET AL. US-4,069,026 01-17-1978 SIMM ET AL. MARTIN ET AL. US-4,044,404 08-30-1977 4,011,067 CAREY, JR. US-03-08-1977 US-US -US -

		FOREIG	SN PATENT D	OCUMENTS		
Examiner	Cite	Foreign Patent Document	Publication Date		Pages, Columns, Lines, Where Relevant Passages or Relevant	Г
Initials*	No.1	CountryCode ³ Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Figures Appear	T ₆
OKT		WO 03/080905 A1	10-02-2003	Nano Technics Co. Ltd.		
TRP		WO 02/43951 A2	06-06-2002	Kimberly-Clark Worldwide Inc.	•	
all		WO 02/20668 A2. A3	03-14-2002	Donaldson Co. Inc.		
04		WO 01/26610 A1	04-19-2001	The University of Akron		
T		WO 01/27365 A1	04-19-2001	The University of Akron		
OHP		WO 00/22207 A2, A3	04-20-2000	The University of Akron	•	
TRP		WO 99/18893 A1	04-22-1999	Drexel Univ./Allegheny Health Education and Research Foundation		
JEP		CA 2,305,004	10-30-2000	Fibermark Gessner GMBH		
JRP		GB 2 104 087 A	03-02-1983	The Univ. of Liverpool/Ethicon Inc.		
JRP		GB 1 527 592	10-04-1978	Imperial Chemical Industries Ltd.		
300		KR 2002-0093179	12-16-2002	Nano Techniques Co. Ltd.	•	
7006		KR 2002-0093178	12-16-2002	Nano Techniques Co. Ltd.		

				·	<u></u>
Examiner Signature	and the	Date Considered	4	21	15
			• •	-7	•

"EXAMINER: Initial Inference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto. Or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patonts, P.O. Box 1450, Alexandria, VA 22313-1450.

TENT &

PTO/SB/08B (08-03) Approved for use through 07/31/2006. OMB 0651-0031

U.S. Petent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known **Application Number** 10/664708 Filing Date September 17, 2003 First Named Inventor MICHAEL ALLEN BRYNER Group Art Unit **Examiner Name** Attorney Docket Number TK3890USNA

Sheet 2 of 3 OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of T2 Cite Examiner the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue Initials * No. number(s), publisher, city and/or country where published. PETER K. BAUMGARTEN, Electrostatic Spinning of Acrylic Microfibers, Journal of Colloid and Interface Science, \Box May 1971, pp. 71-79, Vol. 36, No. 1 A. E. ZACHARIADES, R. S. PORTER, JAYESH DOSHI, GOKOL SRINIVASAN, AND DARRELL H. RENEKER. High Modulus Polymers, A Novel Electrospinning Process, Polymer News, 1995, pp. 208-207, Vol. 20, Overseas Publishers Association, Amsterdam B.V., Pubblished under license by Gordon and Breach Science Publishers SA RAIMUND JAEGER, MICHEL M. BERGSHOEF, CRISTINA MARTIN I BATLLE, HOLGER SCHONHERR, G. JULIUS VANCSO, Electrospinning of Ultra-Thin Polymer Fibers, Macromol. Symp. 1998, pp. 141-150, Vol. 127, Huthig & Wepf Verlag. Zug H. FONG, I. CHUN, D. H. RENEKER, Beaded nanofibers formed during eletrospinning, Polymer., 1999, pp. 4585-4592, 40, Elsevier Science Ltd. SHAHRZAD ZARKOOB, DARRELL H. RENEKER, R. K. EBY, STEVEN D. HUDSON, DALE ERTLEY, WADE W. ADAMS, Structure and Morphology of Nano Electrospun Silk Fibers, Polymer Preprints, 1998, pp. 244-245, Vol. П 39, Issue 2 X. FANG and D. H. RENEKER, DNA Fibers by Electrospinning, J. Macromol. Sci.-Phys., 1997, pp. 189-173, B36(2), Marcel Dekker, Inc. **M** GOKUL SRINIVASAN and DARRELL H. RENEKERT, Structure and Morphology of Small Diameter Electrospun Aramid Fibers, Polymer International, 1995, pp. 195-201, 36, SCI, Great Britain FANG, XIAOYAN, Application of electrospinning for polymers, Dissertation Abstracts International, February 1998, П p. 4246-B, Vol. 58 No. 8 JAYESH DOSHI and DARRELL H. RENEKER, Electrospinning Process and Applications of Electrospun Fibers, Journal of Electrostatics, 1995, 151-160, 35, Elsevier Science B.V. DR. HEIDI SCHREUDER-GIBSON, US Army Universities Team Up to Develop Electrospun Nanofibers for П Clothing Applications, International Fiber Journal, 1998, pp. 49-50, Vol. 13 PHILLIP GIBSON, DONALD RIVIN, CYRUS KENDRICK, and HEIDI SCHREUDER-GIBSON, Humidity-Dependent Air Permeability of Textile Materials, Textile Research Journal, 1999, pp. 311-317, 69(5)

Examiner Signature	Am.	12	Date Considered	4/21/0	
		7-7		,	

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including pathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED

FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450,

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

ATENT BUT

PTO/SB/08B (08-03)

Approved for use through 07/31/2006, OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1448A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary) Sheet

Complete if Known					
Application Number	10/684708				
Filing Date	September 17, 2003				
First Named Inventor	MICHAEL ALLEN BRYNER				
Group Art Unit					
Examiner Name					
Attorney Docket Number	TK3690USNA	_			

**			
		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2
on		W. JOHN G. MC CULLOCH, Ultrafine To Nanofine Fibers Via Spunmelt Processes, Nonwoven World, 2000, pp. 87-92, August-September	
ORP		STANLEY E. ROSS, Electrospinning: The Quest for Nanofibers, Fiber Engeering, International Fiber Journal, October 2001, pp. 50-53	
off		DR. HEIDI SCHREUDER-GIBSON (BILL SMITH), US Army develops fabric membrane to provide multipurpose protection, Technical Textiles International, May 1998, p. 6	
ont		PHILLIP GIBSON, HEIDI SCHREUDER-GIBSON and CHRISTOPHER PENTHENY, Electrospinning Technology: Direct Application of Tailorable Ultrathin Membranes, Journal of Coated Fabrics, July1998, pp. 63-72, Vol. 28, Technomic Publishing Co., Inc.	
JRP		JAYESH DOSHI, Advancing Techniques in Electrospinning Fibers, Section 12, Nanofiber based Nonwoven Composites, its Properties, and Applications, Forbes, July 23, 2001 Issue, Red Herring, July 17, 2001 Issue, Chemical & Engineering News, October 16, 2000 Issue	
ORP		MICHEL M. BERGSHOEF and G. JULIUS VANCSO. Transparent Nanocomposites with Ultrathin, Electrospun Nylon-4,6 Fiber Reinforcement, Advanced Materials, 1999, pp. 1362-1365, 11, No. 16, Wiley-VCH Verlag GmbH, Weinhelm	0
ort		A. BUER, S. C. UGBOLUE, and S. B. WARNER, Electrospinning and Properties of Some Nanofibers, Textile Research Journal, 2001, pp. 323-328, 71(4)	
JRP	·	Y. A. DZENIS and D. H. RENEKER, Polymer Hybrid Nano/Micro Composites, Proceedings of the American Society for Composites, Ninth Technical Conference, September 1994, pp. 657-665, Technomic Publishing Co. Inc. Lancaster-Basel	
SIL		JONG-SANG KIM and DARRELL H. RENEKER, Polybenzimidazole Nanofiber Produced by Electrospinning, Polymer Engineering and Science, May 1999, pp. 849-854, Vol. 39, No. 5	
ord		DARRELL H. RENEKER and IKSOO CHUN, Nanometre diameter fibres of polymer, produced by electrospinning, Nanotechnology, 1996, pp. 216-223, 7, IOP Publishing Ltd., Printed in UK	

Examiner Signature	Ausk L	Date Considered	4/21/05	·
			•	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application from to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Petent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.